

LAPSHIN, Fedor Alekseyevich; KOMAROV, Sergey Georgiyevich; BOCHARNIKOVA,
K.M., inzhener, redaktor; YUDZON, D.M., tekhnicheskij redaktor.

[Railroad cars] Vagonnoe khoziaistvo. Moskva, Gos.transp.shel-dor.
izd-vo, 1955. 190 p. (MLRA 8:9)

(Railroads--Cars)

KOMAROV, S.G.

FRANTSMV, Andrey Nikolayevich; KOMAROV, S.G., red.; VERINA, G.P., tekhn.red.

[Machinist's handbook on repair of freight cars] Posobie slesariu
po remontu gruzovykh vagonov i poezdakh. Moskva, Gos. transp. shel-
dor. izd-vo, 1958. 190 p. (MIRA 11:5)

(Railroads--Freight cars--Maintenance and repair)

KOMAROV, S.G.; SAMOKHVALOV, S.F.; BELAVENTSEV, N.V.; BOMBARDIROV, P.P.;
VERINA, A.A.; BLIZNYUK, V.F.; LADYGIN, V.I.; PEROV, A.N.; VASIL'YEV,
I.P.; BRODOVICH, N.B.; RABINOV, A.M.; ALEKSEYEV, V.D.; YEGOROV,
V.A., inzh.,red.; ARSHINOV, I.M., inzh.,red.; VERINA, G.P., tekhn. red.

[Handbook on the repair of freight cars] Spravochnik po remontu
gruzovykh vagonov. Moskva, Gos. transp. zhel-dor. izd-vo, 1958. 503 p.
(MIRA 11:12)

(Railroads--Freight cars--Maintenance and repair)

FRANTSSEV, Andrey Nikolayevich; KOMAROV, S.G., red.; VERINA, G.P.,
tekhn.red.

[Mechanic's manual for the maintenance of freight cars in
operation] Posobie slesariu po remontu gruzovykh vagonov v
poezdakh. Izd.2., perer. i dop. Moskva, Gos.transp.shel-dor.
izd-vo, 1959. 235 p. (MIRA 12:12)
(Railroads--Freight cars--Maintenance and repair)

KOMAROV, S.G.; KITOV, A.N., inzh.; DOROFYEV, V.G.; SHEREMET'YEV,
M.A.; POMIN, A.A.; KOSAREV, A.A.; SARANTSEV, Yu.S., red.;
VERINA, G.P., tekhn.red.

[Handbook for the repair of passenger cars] Spravochnik po
remontu passazhirskikh vagonov. Moskva, Vses.izdatel'sko-
poligr.ob"edinenie M-va putei soobshcheniia, 1960. 631 p.

(MIRA 13:6)

(Railroads--Passenger cars--Maintenance and repair)

PHASE I BOOK EXPLOITATION

SCV/5872

Komarov, S. G. Doctor of Technical Sciences, ed.

Spravochnik geofizika, v chetyrekh tomakh. t. 2: Geofizicheskiye metody issledovaniya skvazhin (The Geophysicist's Handbook, in Four Volumes. v. 2: Geophysical Methods in the Exploration of Wells) Moscow, Gostoptekhizdat, 1961. 760 p. Errata slip inserted. 6130 copies printed.

Editorial Board: V. V. Fedynskiy, Chairman, V. N. Dakhnov, V. G. Vasil'yev, Ye. N. Kalenov, S. G. Komarov, M. K. Polshkov, L. A. Ryabinkin; Executive Ed.: Ye. G. Pershina; Tech. Ed.: E. A. Mukhina.

PURPOSE: The book is intended for scientific workers in the field of industrial geophysics.

COVERAGE: This volume of the four-volume Geophysicist's Handbook series deals with the geophysical exploration wells. It contains data on various types of logging: electrical, radioactivity, gas, induction, sonic, magnetic, etc. Problems of ground selection, perforation, and well shooting are analyzed. The theory behind the various methods is briefly outlined. The apparatus and equipment used in various industrial geophysical explorations are described, and the

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APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000824110002-3"

The Geophysicist's Handbook (Cont.)

SOV/5872

ways of interpreting the materials obtained are discussed. In addition, the handbook contains information on the organization of geophysical operations, safety measures, and general information on drilling. No personalities are mentioned. There are 341 references: 290 Soviet, 46 English, and 5 French.

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AVAILABLE: Library of Congress

SUBJECT: Geophysics

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MM/dwm/gmp
2-2-62

KASHCHEYEV, Nikolay Tarasovich; VALETOV, Aleksandr Ivanovich; KOMAROV,
Sergey Georgiyevich; POGORELYY, B.G., inzh., retsenzent;
~~SARANTSEV, Yu.S., inzh., red.~~; BOBROVA, Ye.N., tekhn. red.

[Manual on the structures and equipment of railroad car maintenance
and repair depots] Spravochnik po sooruzheniam i oborudovaniyu
vagonnogo khoziaistva. Moskva, Transzheldorizdat, 1962. 423 p.
(MIRA 15:6)

(Railroads-- Cars) (Railroads--Repair shops)

KOMAROV, S.G.; SHMAROVA, V.P.

Membrane potential of clay. Prikl. geofiz. no.31:288-293 '61.
(Clay--Electric properties) (MIRA 15:3)

ANDREYEV, Mikhail Grigor'yevich; SMOL'YANINOVA, Aleksandra Mitrofanovna;
KOLEDENKOV, Sergey Semenovich; KOMAROV, Sergey Georgiyevich;
SHMANTSAR', D.N., retsenzent; DOROFYEVA, A.I., retsenzent;
PESKOVA, L.N., red.; VOROTNIKOVA, L.F., tekhn. red.

[Planning, business accounting and analysis of the administrative
operations of a railroad car depot] Planirovanie, khozraschet i
analiz khoziaistvennoi deiatel'nosti vagonnogo depo. Moskva,
Transzheldorizdat, 1962. 149 p. (MIRA 15:12)
(Railroads--Finance)

KOMAROV, S.I.

Technical conference on industrial water supply to metallurgical
and by-product coking plants. Prom.energ. 15 no.3:51
Mr '60. (MIRA 13:6)

(Water--Distribution)

KOMAROV, S.I.

Competition for the best suggestion on the economy of fuel in ferrous metallurgy plants. Prom.energ. 16 no.5:12-14 My '61.

(MIRA 14:7)

(Fuel) (Metallurgical plants)

L 8132-66

ACC NR: AP5025072

SOURCE CODE: UR/0286/65/000/016/0130/0131

AUTHOR: Komarov, S. K. *85*

ORG: none

TITLE: Device that prevents winding of net ropes on ship propeller shafts. Class 65, No. 174084

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 130-131

TOPIC TAGS: ship screw, marine propeller

ABSTRACT: This Author Certificate presents a device to prevent winding of net ropes, cables, etc onto ship propeller shafts. The device includes a shaft cover placed between the stern post and the ship propeller (see Fig. 1). To provide reliable protection by forming a directed flow which will turn aside the ropes, the cover is made in the form of two cone-shaped rings which are axially joined at their widest diameter and connected to the divider which in turn is attached to the stern post in the diametral plane of the ship.

Card 1/2

UDC: 629.1.037.4:621-783.632.1

L 8132-66

ACC NR: AP5025072

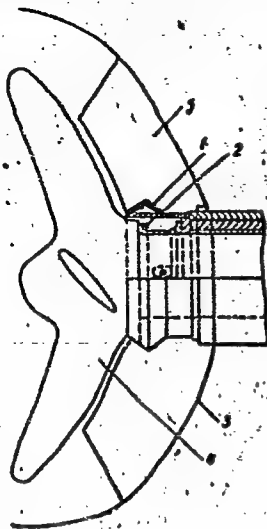


Fig. 1. 1- cover; 2- propeller shaft;
3- stern post; 4- ship screw;
5- separator

Orig. art. has: 1 figure.

SUB CODE: PR, GO, IE/ SUBM DATE: 17Mar64

nw

Card 2/2

YEL'TSOV, B.V.; KOMAROV, S.M.

Using ZAUS regulators at the Novosibirsk Heat and Electric Power
Plant no.4. Priborostroyeniye no.5:22-23 My '64. (MIRA 17:6)

TIMOSHIN, V. S., inzh.; KOMAROV, S. M., inzh.

Adjustment of an impulse device controlling the loading of ball
mills according to a "level" pulse. Energetik 12 no.4:12-14
Ap '64. (MIRA 17:7)

LIST AND NO. CHARTS																										LIST AND NO. CHARTS																									
PROCESSES AND PROPERTIES																										PROCESSES AND PROPERTIES																									
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<p>Antirachitic vitamin D. S. N. Kozlov. <i>Vopr. Khim. Nauch. Tadokatel. Vitam. Tsv. Antirachiticheska. S. S. S. R., Separate, 28 pp. (1948).</i> - The Russian situation with respect to incidence and control of rickets is discussed. The chemistry of sterols as related to vitamin D is reviewed. Julian F. Smith</p>																																																			
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

<p>117 AND 118 CSE 111</p>		<p>119 AND 120 CSE 111</p>	
<p>PROCESSED AND PRESERVED UNDER</p>			
<p>CA</p>	<p>17</p>		
<p>Making preparations of vitamin B complex, suitable for parenteral administration. S. N. Kamenetz and O. R. Shervinn. <i>Proc. Soc. Exp. Biol. Med.</i> 101: 1, 98-104 (1941). A simplified method has been developed for prep. of vitamins (chiefly B₁) from fresh brewers' yeast for parenteral administration. No expts. were made with aq. alc. because of its cost; full attention was given to extn. with hot water. Flavins (B₂) and B₆ do not respond to the same extn. conditions. Yield of B₁ was doubling, whereas yield of I was decreased by preautolysis of the yeast in presence of CHCl₃ at 57°C or by extg. the boiled yeast 24 hrs. at room temp. The optimum conditions for extg. I are pH 4, boiling time about 30 min.; for B₂, pH 5-6, boiling time 2-3 min. Both I and B₂ are about 80% recovered from the aq. ext. by adsorption on gumbrin, a Caucasian blending agent, at pH 3.5-4.5 in 10-20 min. Adsorption with aq. 5% NaCl recovers about 80% of the adsorbed B₂ and B₆ on the pyridine method of Gross and Black (C. A. 36, 680P). A 2% NaOH soln. was used for elution of I. The B₂ eluate was extd. with 80% PhOH, which was then distd. with Et₂O and extd. with H₂O in small portions. The final aq. ext. contained about 60% of the adsorbed B₂. To recover I the 2% NaOH eluate was acidified with HCl, extd. with NaCl and extd. with 80% EtOH. By fractional distn. a combined eluate was finally obtained with 0.15 mg. I and 1.5 mg. B₂ per ml. Presence of all the B vitamins in this prepn. was indicated by a biol. assay. J. P. Smith</p>			
<p>ASAC-556 METALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>FROM SYNDICATE</p>		<p>FROM BOWLING</p>	
<p>100000 14</p>		<p>100000 14</p>	
<p>100000 14</p>		<p>100000 14</p>	

KOMAROV, S. N.

The vitamin D content of the Baltic codfish. S. N. Komarov. *Trudy Vsesoyuz. Nauch.-Issledovatel. Vitamin. Inst.* 4, 209-11 (1953). — The liver fat of the Baltic codfish contains 80-250 I.U./ml. of vitamin D, the Murmansk codfish 10-40 I.U./ml. B. B. Levin

KOMAROV, S.P., podpolkovnik, Geroy Sovetskogo Soyuza

When regulations are not followed. Vest.Vozd.Fl.
no.7:64-65 JI '60. (MIRA 13:7)
(Aeronautics—Safety measures)

KOMAROV, S.^{p.} podpułkownik, bohater Związku Radzieckiego; GRECZYN, W., kapitan,
inz.

Elimination of premises causing aeronautical accidents. Wojsk
przeł 13 no.10:22-26 0 '60.

KOMAROV, Sergey Vasil'yevich; GROMOVA, V.A., red.; NAZAROVA, A.S., tekhn. red.

[How a motion picture is produced] Kak sozdaetsia kinofil'm. Moskva, Izd-vo "Znanie" Vses. ob-va po rasprostraneniu polit. i nauchn. znani, 1961. 39 p. (Narodnyi universitet kul'tury. Fakul'tet literatury i iskusstva, no.6) (MIRA 14:7)

(Motion pictures--Production and direction)

KAMINSKIY, P.; KOMAROV, V.

Safe work methods. Stroitel' 8 no.9:28-29 S '62. (MIRA 15:12)
(Building--Safety measures)

KOMAROV, V.

Our aid to collective farms. Posh.delo 3 no.4:30 Ap '57.

(MIRA 10:?)

(Firemen)

KOMAROV, V., kapitan

Improve the performance of warehouses. Voen.sviaz. 16 no.4:26
Ap '58. (Warehouses) (MIRA 11:4)

KOMAROV, V.

Russia -- Economic Policy

Stalinist program of communist construction. V. pom.profaktivu 14, no. 8, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

KOMARKOV, V.; GETMANENKO, V., starshiy master stantsii

Noninflammable cleaning solutions. Posh.delo 5 no.7:14 Jy '59.
(MIRA 12:9)

1. Nachal'nik Novosibirskoy posharno-ispytatel'noy stantsii
(for Komarkov)
(Cleaning compounds)

LISTOPAD, G. (Velikiy Ustyug, Vologedskaya obl.); KOMAROV, V.
(Novgorodskaya obl.); FEDOROVYKH, I. (Toguchinskiy rayon,
Novosibirskaya obl.); SUVOROV, A. (Omsk); TROSHKOV, D.
(Permskaya obl.); ZAGOROVSKIY, L.; GLOBUSOV (Sverdlovskaya obl.)

1. Readers' letters. Pozh.delo 8 no.12:31 p '62. (MIRA 16:1)
(Fire prevention)

KOMAROV, V.

What automation leads to under capitalism ("Automation and social process" by S.Lilly. Reviewed by V.Komarov). Sov.profsoluzny 7
no.10:59-61 My '59. (MIRA 12:9)
(Labor laws and legislation--Dictionaries)
(Lilly, S.)

ZOTOV, I.; KOMAROV, V.

Posters are a form of concrete propaganda of leading work methods.
Sots. trud. no. 8:122-126 Ag '58.

(MIRA 11:9)

1. Sekretar' partkoma metallozavoda Moskovskogo oblastnogo sovnarkhoza (for Zotov). 2. Nachal'nik otdela truda i zarabotnoy platy metallozavoda Moskovskogo oblastnogo sovnarkhoza (for Komarov).
(Moscow Province--Metal industries) (Posters)

SHNEYDERMAN, M., insh.; KOMAROV, V.

Machine for straightening wheel disks. Avt.transp. 38
no.3:28-29 Mr '60. (MIRA 13:6)
(Machine tools)

GRAKHOVSKIY, R.; KOMAROV, V.

Heater for automobiles. Za rul. 18 no.10:24-25 0 '60.

(Automobiles—Cold weather operation)

(MIRA 14:1)

KOMAROV, V., inzh.

Safety regulations for preparing mortars and concrete mixes.
Stroitel' no. 12:26-27 D '60. (MIRA 13:12)
(Industrial safety) (Mortar) (Concrete)

KOMAROV, V., inzh.

Taking measures to improve working conditions. Stroitel' no.6:25-26
Je '61. (MIRA 14:7)

(Construction industry—Safety measures)

KOMAROV, V., polirovshchik, udarnik kommunisticheskogo truda .

(Cool eyes, warm smile and good spirits. Obshchestv. pit.
no.11:48-49 N '61. (MIRA 15:2)

1. Zavod "Moskabel'".
(Restaurants, lunchrooms, etc.)

KOMAROV, V., polirovshchik

Warmhearted woman. Obshchestv. pit. no.10:19-21 0 '61. (MIRA 15:1)

1. Zavod "Moskabel".

(Moscow--Restaurants, lunchrooms, etc.--Management)

KOLCHIN, A.; KOMAROV, V., mekhanik; ARENDT, G.

Where is the new ER-10 excavator? Stroil. truboprov. 7 no.4:25
Ap '62. (MIRA 15:5)

1. Nachal'nik stroitel'nogo uchastka No.6 tresta
Soyuzprovodmekhanizatsiya (for Kolchin). 2. Nachal'nik
spetsial'nogo konstruktorskogo byuro Gazstroy Mashina (for
Arendt).

(Excavating machinery)

KOMAROV, V.

Guarantee certificate as an indicator of the work performed. Stroitel'
8 no.4:10-11 Ap '62. (MIRA 15:7)
(Building-Contract and specifications)

L 12897-63 EWP(r)/FCS(g)/EWT(d)/EWT(l)/EWT(m)/BDS AFFTC/APQC

ACCESSION NR: AP3000179

8/0029/63/000/005/0018/0018 57

AUTHOR: Komarov, V. (Student) 56

TITLE: Uniform-strength structures -- the limit of possibility

SOURCE: Tekhnika molodezhi, no. 5, 1963, 18

TOPIC TAGS: uniform-strength wing, stress calculation, sandwich-type construction

ABSTRACT: V. Komarov was awarded a gold medal¹⁴ for his research on and calculations of a uniform-strength wing having only one point of attachment. The wing investigated had diverging longerons and the metal was so distributed as to assure a structure of maximum rigidity. The study showed that uniform-strength wings¹⁵ are the lightest in weight. However, their manufacture is complicated, since the sandwich-construction¹⁶ edges have a variable cross section. Therefore, calculations were made for a uniform-strength wing with longerons and edges having a constant cross section. Calculations showed that it was advantageous to use sectional edges. The increased rigidity of the edges decreased the stress on the long longerons and increased the stress on the short ones. The stress in a uniform-strength structure is the same in all of

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ACCESSION NR: AP3000179

its cross sections, proportional to the load. Therefore, the method of calculation is not based upon the stress diagram and is equally accurate for metals, plastics, reinforced plastics, and other materials not subject to Hooke's Law. Orig. art. has: 1 figure.

ASSOCIATION: Kuyby'shevskiy aviatsionnyy institut (Kuybyshev Aviation Institute)

SUBMITTED: 00

DATE ACQ: 10Jun63

ENCL: 00

SUB CODE: AP

NO REF SOV: 000

OTHER: 000

Card 2/2

KOMAROV, V.

KOMAROV, V.

From three whales to the geoid. IUn.tekh. 2 no.1:16-21 Ja '58.

(MIRA 11:1)

(Earth--Figure)

KOMAROV, V.

Why did giant pangolins die out? IUn. tekhn. 2 no.7:41-46
Jl '58. (MIRA 11:10)
(Extinct animals) (Paleontology--Mesozoic)

KOMAROV, V.

Cosmic chemistry. IUn.tekh. 2 no.8:27-30 Ag '58.
(MIRA 12:7)
(Cosmogony)

KOMAROV, V.

The 61st satellite. IUn.tekh. 3 no.1:53-54 Ja '59.
(Satellites) (MIRA 12:1)

KOMAROV, V.

Volcano on the moon. IUn.tekh. 3 no.3:37-41 Mr '59.

(MIRA 12:4)

(Moon--Surface)

KOMAROV, V.

Solar system in 1959. IUn.tekh. 3 no.4:13-16 Ap '59.

(MIRA 12:4)

(Solar system)

KOMAROV, V., lektor

Road to outer space. Mast. ugl. 8 no. 12:3-4 D '59.
(MIRA 13:4)

1. Moskovskiy planetariy.
(Space flight)

KOMAROV, V., lektor

Man strives to conquer outer space. Sov.shakht. 10 no.8:42-
44 Ag '61. (MIRA 14:8)

1. Moskovskiy planetariy.
(Astronautics)

KOMAROV, V.

The new and progressive are winning out (*Fighter planes take
off* by I. Grebeniuk. Reviewed by V. Komarov. Kryl.rod.
12 no.4:19 Ap '61. (MIRA 14:7)

(Flight training)
(Grebeniuk, I.)

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AUTHORS: Komarov, V., and Smirnov, M. V.TITLE: Equilibrium potentials of hafnium in mixed fluoride-chloride melts ^{1/}

SOURCE: Akademiya nauk SSSR. Ural'skiy filial. Institut elektrokhimii. Trudy, no, 1961, Elektrokhiimiya rasplavlennykh soleykh i tverdykh elektrolitov. 19-22

TEXT: The formation of stable hafnium-fluorine complexes in the above salts can be deduced from the results of equilibrium potential measurements of hafnium and from the fact that no solid phase of any hafnium compound containing fluorine is formed when NaCl-KCl fused salts containing up to 3.4 wt % of Hf and up to 35 wt % of NaF are heated between 700 and 900°C. The equilibrium potentials of hafnium were measured against a chlorine reference electrode in NaCl-KCl fused salts containing from 0.99 to 3.4 wt % of Hf and 1.36 to 15.8 wt % of fluorine at 700, 800, and 900°C. Formulas representing the temperature dependence of the equilibrium potential and of the instability coefficient of the HfF_6^{2-} ion are given. There are 2 figures.

Card (1/1) ^{1/} REFERENCE S/631/61/002/002/013

KOMAROV, V., general-polkovnik

Acquire combat training in the field. Starsh.-serzh. no.5:10
My '62. (MIRA 15:6)

1. Zamestitel' glavnokomanduyushchego Sukhoputnymi voyskami,
nachal'nik Glavnogo upravleniya boyevoy podgotovki.
(Military education)

KOMAROV, V.

Farther and farther into the outer space. Sov.shakht. 11
no.11:41-43 N '62. (MIRA 15:11)

1. Chlen Vsesoyuznogo astronomo-geodeticheskogo obshchestva pri
Akademii nauk SSSR.

(Astronautics)

KOMAROV, Viktor'

Satellites over the planet. Prir i znanie 15 no.9:18-19 N '62.

1. Nauchen komentator na Agentsiata po pechata Novosti.

KOMAROV, V.

Star map. Nauka i zhizn' 29 no.7:109 J1 '62.
(Stars--Atlases)

(MIRA 16:6)

1 00008-65 TR-2/TR(a)-2/TR(c)/TR(d)/TR(e)/TR(f)/TR(g)/TR(h)/TR(i)/TR(j)/TR(k)/TR(l)/TR(m)/TR(n)/TR(o)/TR(p)/TR(q)/TR(r)/TR(s)/TR(t)/TR(u)/TR(v)/TR(w)/TR(x)/TR(y)/TR(z)/

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5 0209104 000 1 1 007 000 1 00008-65

AUTHOR: Komarov, V. (Engineer, Colonel, Hero of the Soviet Union, Aviator, Cosmonaut)

60
13

TITLE: For the good of all mankind (the flight of the three-man "Voskhod" spacecraft)

SOURCE: Aviatziya i kosmonavtika, no. 12, 1964, 27-30

TOPIC TAGS: "Voskhod" series, astronaut training, manned satellite, spacecraft
spacecraft instrumentation, weightlessness, space flight, space observa-
tion, "Voskhod" spacecraft

ABSTRACT: The author was one of the three-man crew aboard the Soviet "Voskhod" spaceship which was launched on 12 October 1964 and landed, after 10 orbits around the Earth, on 13 October 1964. In the present article, he discusses some of the aspects of that historic space flight. The presentation is in a popular and non-technical style and is aimed at the non-specialist reader. The other members of the crew (K. P. Feoktistov, the scientist, and B. B. Yegorov, the astronaut-medic) are identified and their duties are briefly defined. The flight program, which the author states was scheduled for execution in a single 24-hour period and which was carried out completely, included the following basic goals: 1) the testing

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ACCESSION NR: AP5001808

of the design and operational characteristics of the new multi-place piloted spacecraft, its systems and its instrumentation; 2) the study of the capability for work and cooperation in flight of a group of astronauts, consisting of specialists in various fields; 3) the conducting of scientific investigations of a physical-technical and medical-biological nature during the conditions of an extended space flight; 4) the continued study of the effect of various spaceflight-related factors on the human organism. The need for a close spirit of cooperation and friendly mutual assistance among all 3 crew members for the successful execution of this flight program is noted. Mention is made of the training of the crew that preceded the actual launching, and attention is called to the fact that the crew took an actual part in the creation of the "Voskhod" vehicle, and of its systems and instrumentation. The author states that the so-called "medical-biological preparation" (that is, testing and training) was carried out according to an abbreviated program". This program apparently included vestibular, G-force support and emotional training elements. Noting that all six "Vostok" single-man flights, the author points out that the expanded 3-man "Voskhod" spacecraft made it possible not only to enlarge the scope of the scientific program of the undertaking considerably, but also to place the observations on a more scientific and higher level. The need to suspend observa-

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tions for the time required by the astronaut for sleep, for example, which was inherent in the "Vostok" flights, was easily eliminated in the case of the "Voskhod" by the simple expedient of conducting the observations in shifts. Greater objectivity through a diversity of interpretation is also afforded by a crew rather than by a single astronaut. Among the other items mentioned by the author one might single out the fact that for the first time the astronauts were not encumbered by the usual "space-suit", the fact that the "soft-landing" system performed perfectly, the fact that a "new principle for the control of the spacecraft was experimentally checked out" (this "new principle" is not further discussed or identified), and the fact that a series of experiments with liquids and gases under the conditions of weightlessness were carried out. Orig. art. has: 3 photographs.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: SV, PH

NO REF SOV: 000

OTHER: 000

Card 3/3 *mf*

ACC NR: AP7005431

SOURCE CODE: UR/0209/66/000/009/0040/0043

AUTHOR: Komarov, V. (Colonel; Cosmonaut; Hero of the Soviet Union)

ORG: none

TITLE: Scientific expeditions in space

SOURCE: Aviatsiya i kosmonavtika, no. 9, 1966, 40-43

TOPIC TAGS: astronaut, spaceborne earth observation, aurora, space flight

ABSTRACT:

Cosmonaut V. Komarov quotes his fellow cosmonaut K. P. Feoktistov who made observations from space: "Observations of the horizon were made for obtaining data on the clarity of the boundary of the horizon for the purpose of selecting a reference layer in the optical range for ensuring navigation and orientation in orbital and interplanetary flights when it is necessary to use the earth as a reference celestial body during astronavigational measurements and for orientation of space-ships and automatic space vehicles. In most cases on the daytime side of the earth the horizon is observed both as the boundary of the atmosphere and the earth and a "layer" of a blue aureole with a clear upper boundary. The upper boundary of this aureole is clearer than the apparent boundary between the earth and atmosphere. After the ship entered the earth's shadow it was possible to observe a layer of brightness at an altitude of 60-100 km above the boundary between the earth and atmosphere. The brightness of the layer was close to the brightness observed at the horizon of the earth, illuminated by the moon. The crew

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ACC NR: AP7005431

was most impressed by an aurora which was observed in Antarctica prior to emergence from the shadow. The picture was as follows: horizon, dark sky, upper layer of brightness illuminated by the moon, and above it -- rays perpendicular to the horizon with an altitude of 6-8° and intervals of about 2°. Along the horizon the aurora occupied the entire visible field of view. It was found possible to measure the altitude of stars above the visible horizon, which in the future will make it possible in space flights to automatically determine spacecraft position and compute its trajectory of motion and necessary corrections. It was possible to observe luminescent particles in the portholes of the ship when the direction of observation was perpendicular to the sun's rays. Presumably those were dust particles separated from the ship, illuminated by the sun and situated several meters from the ship." The objective of this article is to demonstrate that the role of the scientific specialist aboard a spacecraft is exceptionally varied and important for direct observations in space. A table accompanying the text lists different types of possible scientific flights, the recommended orbital altitude, optimum number of crew members and duration of flight and the equipment which should be carried and the experiments to be carried out (however, it is noted that this information was taken from the foreign press). Orig. art. has: 1 table. [JPRS: 38,677]

SUB CODE: 22 / SUBM DATE: none

KOMAROV, V. A.

MEN, S.A., dots.; KOMAROV, V.A., red.; BEGICHEVA, M.N., tekhn.red.

[Conveying machines and installations] Transportiruiushchie mashiny
i ustanovki. Moskva, Izd-vo M-va rechnogo flota SSSR, 1951. 503 p.
(Conveying machinery) (MIRA 11:2)

VOROBTSOV, Yevgeniy Stefanovich; KOMAROV, V.A., retsenzent; ANDREYEVA,
L.S., red.; TIKHONOVA, Ye.A., tekhn.red.

[Mechanization of transfer operations of hold, freight car, and
warehouse materials in seaports] Mekhanizatsiia triunnykh,
vagonnykh i skladskikh peregruzochnykh rabot v morskikh portakh.
Moskva, Izd-vo "Morskoi transport," 1961. 346 p.

(MIRA 15:5)

(Materials handling)

(Harbors)

Komarov, V. A.

AID P - 4069

Subject : USSR/Power

Card 1/1 Pub. 26 - 27/33

Author : Komarov, V. A., Eng.

Title : Defects in preassembled current transformers.

Periodical : Elek. sta., 12, 55, 1955

Abstract : The article describes defects found in transformers delivered at a new power plant's construction site. Gaging transformers were shipped back to the factory.

Institution : None

Submitted : No date

KOMAROV, V.A.

KOMAROV, V.A., insh.

Rope carrying system in repairing 400 kv cutouts. Energetik 5
no.10:19-21 0:157. (MIRA 10:12)
(Electric lines—Maintenance and repair)

BAZHINOV, A.G., podpolkovnik meditsinskoy sluzhby; KAMORSKIY, N.M., podpolkovnik;
KOMAROV, V.A., podpolkovnik, kand.khimicheskikh nauk

New substances and methods for disinfecting hospital rooms (as
revealed by foreign studies). Voen.-med. zhur. no.7:53-56 J1 '61.

(MIRA 15:1)

(DISINFECTION AND DISINFECTANTS) (HOSPITALS SANITATION)

KOMAROV, V.A.

Ecology of penduline titmouse (*Remiz pendulinus caspius* Pootsam)
in the Volga Delta. Trudy Astr. zap. no.5:262-268 '61.
(MIRA 16:8)

(Volga Delta--Titmice)

BOGOMOLOV, V. P.; ZHEREBTSOVA, K. I.; KRASHOV, L. V.; KOMAROV, V. A.; LITVIN, V. F.;
KOROTKOV, Yu. A.

"Investigations of the Reactions of Type (d,p) on Isotopes of Zn, Ni,
and Fe⁵⁸."

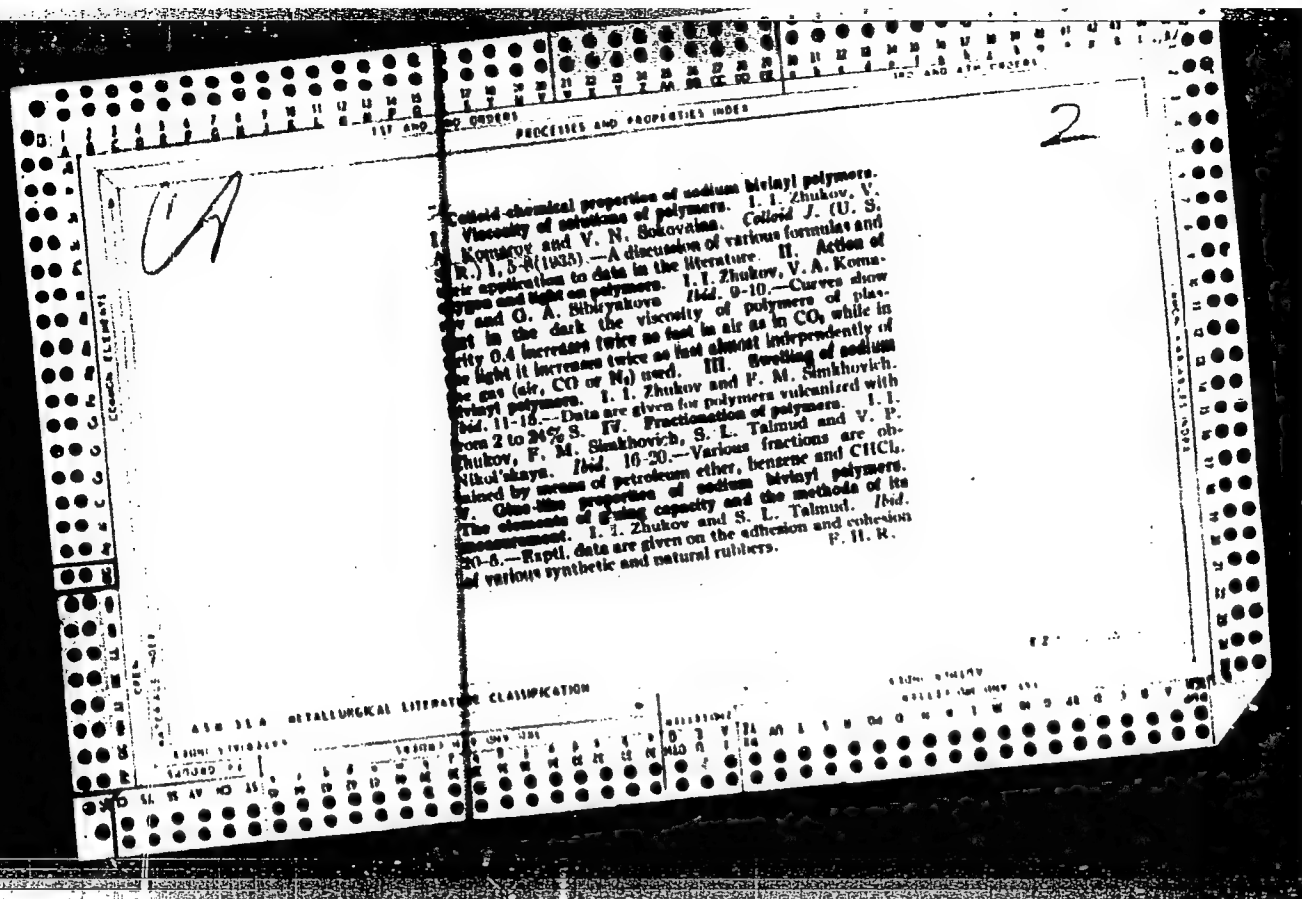
report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22
Feb 64.

Radiyevyy Institut (Radium Inst)

KOMAROV, V.A.; MUSIYACHENKO, T.I.

Let's overcome our shortcoming. Zemledelie 26 no.12:20-23 D '64.
(MIRA 18:4)

1. Direktor sovkhoza "Yarul'skiy", Rybinskogo proizvodstvennogo upravleniya, Krasnoyarskogo kraya (for Komarov). 2. Glavnyy agronom sovkhoza "Yarul'skiy", Rybinskogo proizvodstvennogo upravleniya, Krasnoyarskogo kraya (for Musiyachenko).



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Physicochemical investigations of sodium-bisvinyl polymers. I. I. Zhukov, V. A. Komarov, and G. N. Sibirskaya. IV. Investigation of the action of oxygen and light on sodium-bisvinyl rubber. *Soviet. Kautschuk* 6, No. 3, 4-10 (1958); cf. C. A. 20, 48361. The polymer absorbed a few % of atm. O after careful removal of inorg. and org. admixts. Light may act on the Na-bisvinyl polymer in 2 ways: (1) when exposed to dispersed light, and to a lesser degree in darkness, disaggregation or depolymerization of the polymer particles in a soln. may take place, and (2) the polymer particles in a soln. may take place, and (2) structural changes in the system leading to the formation of a photo-gel may occur through the influence of direct sunlight. Disaggregation of the polymer in the soln. depends on the gaseous medium, and is highest in the presence of air and lowest with pure N₂. Disaggregation of the polymer particles in soln. depends upon the history of the polymers, and is insignificant with polymer solns. stored for a long time. The app. is described. Twenty references.

A. A. Boettling

(Handwritten mark)

Kinetics of the oxidation of iron chloride by atmospheric oxygen under pressure. V. V. Ipat'ev, Jr., V. A. Kurinov and D. K. Kurmansev. J. Phys. Chem. (U.S.S.R.) 9, 1043-50(1935).—FeCl₃ was oxidized by O₂ at 35° to 76° and at pressures of 10 to 40 atm. The velocity of reaction is a function of H-ion concn. (it varies for different temp.; increase in H⁺ at low temp. increases, and at high temp. decreases, the rate of reaction). Above 150° FeCl₃ decomposes to FeCl₂. The rates of oxidation are given by the Arrhenius equation. F. H. R.

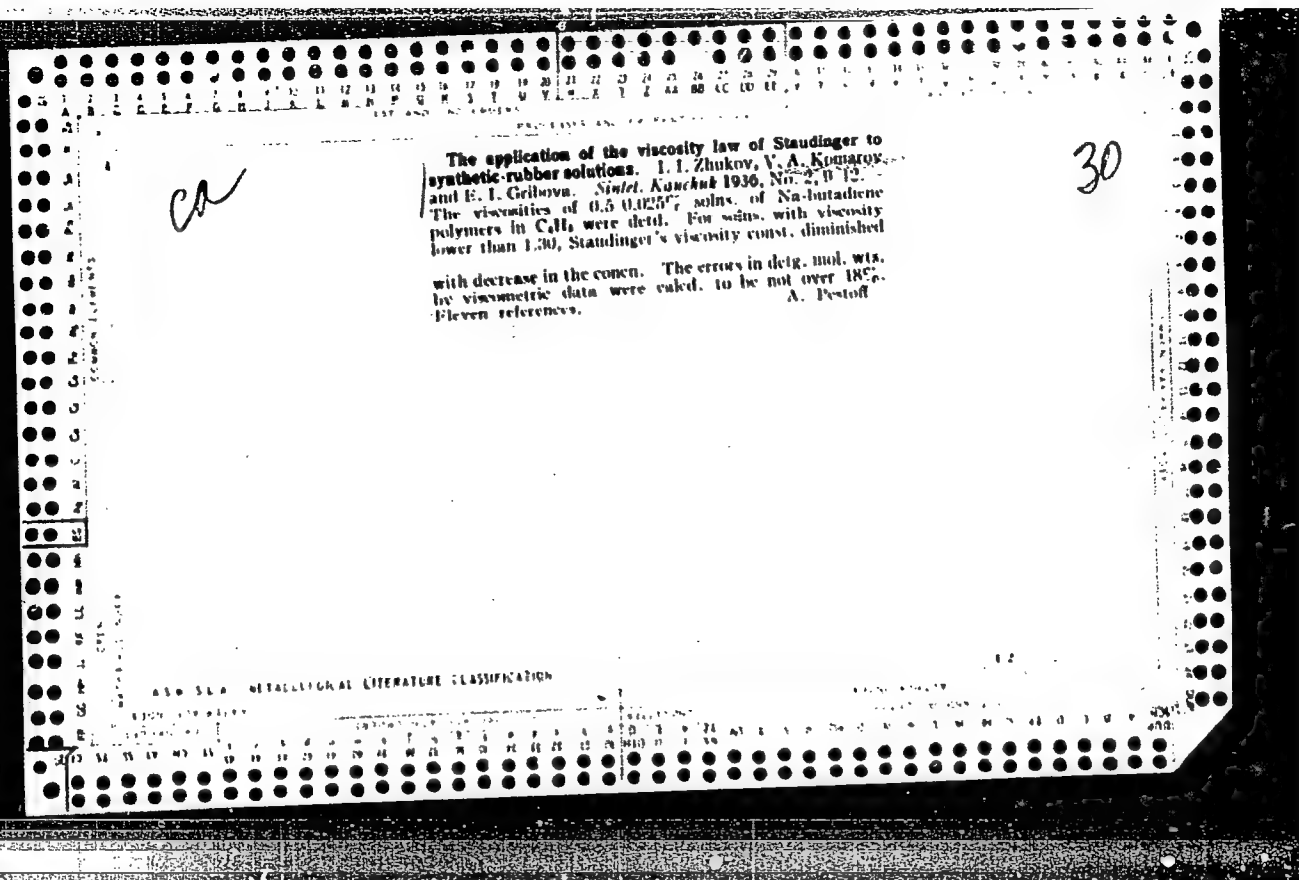
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Ca

The influence of heating on sodium butadiene rubber in solution. I. I. Zhukov, V. A. Komarov, S. F. Val'ter and R. I. Gribova. *Sintet. Kautschuk* 1936, No. 2, 4-6. - Na butadiene rubber (I) was purified by pptn. with alc. from butadiene rubber (II) and dried *in vacuo* to const. wt. C_6H_6 solns. of I of 0.1, 0.2, 0.3, 0.5 and 1.5% concn. were prep'd., and 15-cc. samples were put in glass ampoules, sealed and heated at 100°, 115°, 130° and 160°, resp., for different times. The changes were followed in 2 ways: (1) by viscosity changes in an Ostwald viscometer at 25° in N; the relative viscosity η_r (the ratio of the time of flowing of the soln. to the time of flowing of pure solvent) was det'd. and by using η_r , the mol. wt. of the polymer in soln. (M) and the sp. vol. of polymer in soln. (f) were calcd.; and (2) by measuring the surface tension between calcd.; and (2) by measuring the surface tension between a C_6H_6 soln. of rubber and water (σ) (the surface tension showed the degree of oxidation). Heating up to 100° slightly changed η_r , M , f and σ , but from 100° to 160°, η_r , M , f and σ decreased rapidly, and η_r nearly approached the viscosity of the solvent. The time of heating had the same effect upon η_r , M , f and σ , the values of which decreased to a certain min., after which further heating increased them. The 0.5% solns. of I in several org. solvents were heated for 24 hrs. at 130° and η_r , M , f and σ were det'd. It was found that the nature of the solvent has a decided influence on the degree of depolymerization (the ratio of the mol. wts. after and before heating of the polymer M_1/M_2). For *l*-pinene, M_1/M_2 was 0.54; *d*-pinene 0.20; $PhCl$ 0.10; C_6H_6 0.11; $CHCl_3$ 0.070; CCl_4 0.07; xylene 0.18; cyclohexene 0.12; dichloro-ethylene 0.23; cumene 0.33. To 100 cc. of 0.5% soln. of polymer in C_6H_6 was added 0.01 g. of antioxidant (Agerite, Neozone, Albaxan, etc.), the mixts. were sealed in ampoules and heated for 24 hrs. at 130°. These tests were made in air, N and *in vacuo*. All antioxidants prevented decrease in viscosity and surface tension on heating. With decrease in the antioxidants from 0.5 to 0.015%, their stabilizing action diminished. In the absence of an antioxidant *in vacuo*, depolymerization was much less, but the antioxidant exerted its stabilizing action in air, N and *in vacuo*. The heating of the polymer with an antioxidant *in vacuo* resulted in less depolymerization than without antioxidant (σ without antioxidant 28.0, with 20.2; M 37,240 and 32,700; f 60.6 and 77.3; η_r 1.01 and 2.28). Therefore, the antioxidant exerted its stabilizing action upon the polymer, even when it was practically absent. The action of the antioxidant consisted: (1) in preventing oxidation of the polymer, and (2) in a general stabilizing effect upon high-mol. substances. The authors suggest that these antioxidants be designated: "stabilizers" or "antiagers." Seventeen references are included.

A. Petroff

ASB-5LA DETALLURGICAL LITERATURE CLASSIFICATION



PROCESS AND PROPERTIES INDEX

30

Applicability of the Staudinger viscosity law to synthetic rubber solutions. I. I. Zhukov, V. A. Komarov and R. I. Gribova. *Colloid J.* (U. S. S. R.) **7**, 119-M (1965); cf. C. A. **50**, 4717. Data on dil. C₆H₆ solns. of Na divinyl polymers and of chloroprene and Na isoprene (0.02 to 0.5%) show that the Staudinger const.: $KM = (\eta - 1)/c$, increases with increasing concn. Z., K. and G. hold that this is due not to a change in mol. wt. with concn., but to the approximation character of the viscosity law, which is valid only at low concns. The plasticities and mol. wts., resp., of the polymers used were: Na divinyl I, 0.24, 88,000; Na divinyl II, 0.28, 30,000; Na divinyl III, 0.44, 35,500; chloroprene 27,500; Na isoprene 33,000.

F. H. Rathmann

1ST AND 2ND GROUPS										3RD AND 4TH GROUPS									
PROCESS AND PROPERTIES INDEX																			
<p>17</p> <p>The influence of milling on the colloidal chemical prop- erties of sodium butadiene rubber. I. I. Zhukov, <i>U.S.S.R.</i> <i>Khimiya-Rub. 1. (Gribova and N. L. Selivanova, <u>Stro-</u></i> <i>Konstruk 1950, No. 1, 48. Na butadiene rubber (I) of</i> <i>plasticity 0.3-0.2 (Karrer) was milled at 15° and 60° for</i> <i>3 min. to 3 hrs. with and without Agersite (II). The</i> <i>mol. wt. of I decreased with increase in the time of milling:</i> <i>from 72,000 after 3 min. to 3000 after 2 hrs.; therefore the</i> <i>sol. form of I was depolymerized. This depolymerization</i> <i>was less in the presence of II. The proportion of the insol.</i> <i>form of the polymer increased from 68.0% after 3 min. of</i> <i>milling to 85.4% after 2 hrs. of milling at 15° without II;</i> <i>with II it decreased from 69% (10 min.) to 6% (3 hrs.).</i> <i>The viscosity of a 0.25% soln. of I in C₆H₆ decreased from</i> <i>1.90 after 3 min. of milling to 1.04 after 2 hrs. The inter-</i> <i>facial tension between water and a soln. of the polymer in</i> <i>C₆H₆ did not change. The viscosity of I after being milled</i> <i>without II and then let stand increased with the time of</i> <i>rest from 1.28 (25 min. of rest) to 1.77 (24 hrs., 40 min. of</i> <i>rest). The proportion of the insol. form of the polymer</i> <i>did not change after rest. Nineteen references. A. P.</i></p>																			
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<p>Investigation of the precipitation of sodium butadiene polymers from their benzene solutions by alcohol. V. A. Komarov and N. P. Selivanova. <i>Soviet. Kautchuk</i> 1966, No. 10, 7-10. The conditions of pptn. of 0.25% solns. of Na butadiene polymers in C₂H₅OH were studied. The threshold of pptn. of the low-mol. polymer is higher than that of the high-mol. one. With decrease in concn. and increase in the temp. of pptn., the threshold of pptn. increased. The chem. nature of the precipitant has a great influence on the threshold of pptn.: it required 4.0 cc. of MeOH (per 20 cc. of 0.25% soln.); 0.2 cc. of EtOH, 13.8 cc. of EtOH, 22.5 cc. of acetone and 12.6 cc. of phenol to reach the threshold of pptn. A. Petroff</p>																																																																																																			

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Determination of the molecular weight of sodium butadiene polymers by the method of partial vulcanization, V. A. Krasov and S. F. Val'ter. *Soviet. Kautschuk* 1930, No. 10, 11-13; cf. C. A. 25, 4835V. The polymer was dissolved in C_6H_6 and the solvent was removed in vacuo at room temp. A mixt. of 10 g. of polymer and 1.5 g. of tetramethylthiuram disulfide was vulcanized at 100° for 1 hr. and again dissolved in C_6H_6 . The dissolved part of the polymer was fractionated by addn. in a separatory funnel, of KOH till the first flocculent ppt. was formed; this ppt. was washed with KOH , dried, weighed and analyzed for total S. KOH was added to the soln. remaining from the 1st ppt. until a ppt. was just formed; the ppt. was collected and so on, until 4 fractions were collected. The proportion of S in the 1st fraction was taken as a unit (1 atom); the 2nd fraction was found to be 1.5 atoms; the 3rd, 2 atoms; the 4th, 3 atoms; the mol. wts. of the fractions were 12,200, 13,300, 12,700 and 11,000, or approx. 0.25 of the mol. wt. of natural rubber. I. C. A. 25, 4835V. A. Pestoff

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p><i>co</i></p>										<p>The solution of sodium butadiene polymers in solutions. V. A. Komarov and E. I. Grebova. <i>Sintet. Kautschuk</i> 1936, No. 11-12, 9-12; cf. C. A. 29, 2051¹.—The change of viscosity of 0.2% solns. of Na butadiene polymer (plasticity 0.1) in CCl_4, Et_2O, CCl_3 and H_2OAc with the addn. of $EtOH$ (as a precipitant) was studied. The viscos- ity of the solns. decreased with the addn. of a precipitant (the proportion of $EtOH$ used was less than the amt. re- quired to reach the threshold of pptn.) which condition is indicative of desolvation. Seven references. A. P.</p>									
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>33000 63-170</p>									
<p>33000 63-170</p>										<p>33000 63-170</p>									

C.R.

7

Determining moisture in gases. V. A. Komarov.
Russ. Zhurn., Oct. 31, 1937. The moisture is absorbed
in an org. solvent, an electrolyte (e.g., oxalic acid) is
added, and the water detd. by measuring the elec. cond.

ASD-5LA METALLURGICAL LITERATURE CLASSIFICATION

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<p><i>ca</i></p> <p style="text-align: right;">30</p> <p>Methods for determining the colloidal-chemical characteristics of sodium-divinyl rubber. I. I. Zhukov and V. A. Komarov. <i>Sbornik Trudov Opytnogo Zavoda im. S. V. Lebedeva</i> 1939, 3-11; <i>Khim. Referat. Zhur.</i> 2, No. 5, 19(1939); cf. C. A. 33, 41001. —The colloidal-chem. properties of Na-divinyl rubber were detd. from the soly. of the rubber, from its fractional compn. and from the η of its dil. solns. A detailed description of the methods of these detns. is given. Measurements of the η were performed in an Ostwald viscometer for volatile substances (the vol. of the upper ball was 1 cc, and the diam. of the capillary 0.2 mm.). 0.25% solns. of the polymers in $C_{12}H_{22}$ were used for the detns. The soly. detns. were made by shaking the samples of the polymers in little battiste bags in $C_{12}H_{22}$, and by detg. the soly. of the polymer from the concn. of the soln. The soly. of the coreless rubber increased from milling (after 45 min.'s milling the rubber dissolved in 24 hrs.). The rate of soln. was increased 10-fold by heating the rubber on a water bath. The ratio solvent:sample, can vary between wide limits without important changes in the soly. The soly. of rubber decreased when the rubber was kept in storage. The sepn. of the polymers was performed by fractional pptn. with alc. from $C_{12}H_{22}$ solns. of the polymers. To 3 portions of 25 cc. of 1% soln. of the polymer add 7.6, 17.4 and 34.7 cc. of alc., resp., let stand overnight and det. the wt. of the ppt. by drying to const. wt. at 75-85°. These amts. of alc. correspond in general to the pptn. of the 1st and the 2nd fractions. The 3rd fraction is pptd. by an excess of alc. and the 4th fraction remains in soln. and is detd. from the difference.</p> <p style="text-align: right;">W. R. Henn</p>																																																																																																																																																																																				
<p>ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>1100: 1110:IVA</p>																																																																																																																																																																																				
<table border="1"> <thead> <tr> <th colspan="13">1100: 1110:IVA</th> <th colspan="13">1100: 1110:IVB</th> <th colspan="13">1100: 1110:IVC</th> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td> <td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> <td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td>32</td><td>33</td><td>34</td><td>35</td><td>36</td><td>37</td><td>38</td> <td>39</td><td>40</td><td>41</td><td>42</td><td>43</td><td>44</td><td>45</td> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>																																																				1100: 1110:IVA													1100: 1110:IVB													1100: 1110:IVC													1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45																																													
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117 AND 118 CROSS										119 AND 120 CROSS									
PROCESSING AND PROPERTY INDEX																			
<p>Ca</p> <p>Organogels and organosols. Colloid-chemical properties of sodium-divinyl polymers. I. I. Zhukov, V. A. Komarov and S. L. Talmud. <i>Bull. acad. sci. U. R. S. S. Chem. nat. Sci.</i> 1963, 775-80 (in English, 790-3). <i>E. C. A. 30</i>, 6603-9, 7909-3. —A review of 27 expts. and of some literature on the subject. The Na-divinyl polymers consist of a mixt. of Coll-sol. and insol. forms, possessing different phys. properties based on the difference in their mol. wt. Heating to 100° does not appreciably affect the mol. wt., but at higher temps. the mol. wt. is sharply reduced and the viscosity is close to that of the pure solvent. At const. temp. the mol. wt. rapidly diminishes with increase in duration of heating. With heating under const. conditions the change in the mol. wt. is independent of the concn. of the soln. Expts. with 44 org. solvents showed that unsatn. promotes swelling. Na-divinyl polymers treated with antioxidants are transformed into an insol. form in sunlight or elec. arc light, the ultraviolet part of the spectrum with $\lambda < 280 \text{ m}\mu$ producing a further polymerization. 30 references. J. G. Tolpin</p>																			
<p>117 AND 118 CROSS</p> <p>119 AND 120 CROSS</p>																			

KOMAROV, V.A.

✓ New trends in the scientific research work of the Chemi-
cal Institute of the Leningrad University. V. A. Komarov.
Vestnik Leningrad Univ. 2, No. 1, 201-2 (1947).—A discus-
sion of the work which is planned for the coming 5-year
period. Special emphasis is placed on the study of alloys
and the production of synthetic (Fischer-Tropsch) fuels.
I. Koyler Leach. 1

CA

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Surface determination by the method of adsorption of vapors. V. A. Komarev, V. M. Drondova, and E. A. Chernikova. *Zhur. Fiz. Khim.* 28, 1141-51(1940).—Adsorption of N_2 by MgO , ZnO , CdO , and Cr_2O_3 (all pptd. from nitrate salts with NH_4 and heated to 500°), by Cr_2O_3 from $(NH_4)_2Cr_2O_7$ by a natural and 3 artificial samples of SiO_2 , and by metallic Mg and Zn was detd. at -185° . The surface S_1 calcd. from the adsorption at which the linear portion of the isotherm starts usually was smaller than that, S_2 , calcd. from the Brunauer-Emmett-Teller theory (C.A. 32, 40379), the greatest difference being 60%, whereas surface S_3 calcd. from the Harkins-Jura equation (C.A. 38, 6126) was, on the av., = 0.76 S_1 . In several instances, the latter equation was applicable only if its coeffs. had 2 different values at small and great relative pressures. Adsorption of butane at 0° was detd. for ZnO , MgO , the 4 SiO_2 samples, and one of the Cr_2O_3 samples. Here also S_2 usually was greater than either S_1 or S_3 . If the areas occupied by a mol. of N_2 and butane after long adsorption was in all instances smaller than that accessible to N_2 ; the ratio was, e.g. 0.17-0.48 for the SiO_2 samples and 0.21, 0.39, and 0.73 for ZnO , Cr_2O_3 , and MgO . The ams. of butane adsorbed within a few min. were smaller than those after long adsorption. Apparently, there are 3 fractions of the total surface: (a) rapidly and (b) slowly accessible to butane and (c) accessible only to N_2 . Heating in $EtOH$ at $320-440^\circ$ for hrs. lowered S_1 of MgO and ZnO and increased S_2 of CdO on lactic, of Mg , and Zn .
J. J. Bikerman

KOMAROV, V. A., DROZDOVA, V. M., SHIF, G. A.

Reduction, Chemical

Determination of the starting temperature of reduction of metallic oxides with hydrogen. Uch.zap. Len.un. No. 130, 1951.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 ~~1953~~, Uncl.

1. KOMAROV, V. A.
2. USSR (600)
4. Chemical Reaction - Velocity
7. Connection between initial temperatures of reactions and variations of free energy for monotype reactions, Dokl. AN SSSR 87, No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

Expt. Unit. No. ~~47~~ 47 2942c. The relation between immo-

Tar^o is calculated from calculated Tar^o = 36-10^o. The relation between association reaction. Ibid. 36-10^o. The relation between Tar^o of Ca, Mg, Fe, Mn, Zn, Ba, Cr, and Pb carbonate di-
s-
soon, and changes in free energy (ΔF_{1000}) and the temp. at
which ΔF_{1000} is equalled. According to literature data
there is an approx. linear relation between Tar^o and ΔF_{1000} .
well as between T_H and Tar^o. Ibid. 41-8^o. T_H , ΔF_{1000} , and Tar^o
oxides with alcohols. Ibid. 41-8^o. T_H , ΔF_{1000} , and Tar^o
were studied for the reactions $EtOH + MO = C_2H_5O + M$
 $M = H_2O$ and $PROH + MO = C_3H_7O + M$, and MgO ,
 $MO = CuO$, CaO , CdO , ZnO , Cr_2O_3 , PbO , MnO , and NiO .
 T_H was determined from the appearance of gas evolution and Tar^o
was an indicator (HCl) and of NH_4OH . ΔF_{1000} and Tar^o
were calculated from tabulated data. For the 2nd of the above
reactions there was a linear relation between T_H and ΔF_{1000}
as well as for T_H and Tar^o. For the 1st reaction the rela-
tion was expressed by a fitting curve. *Referent. Zhur., 8. Sim.*
1954. Nos. 27452-53-51. M. Hosh

Mr. Nathan

KOMAROV, V.A.

(2)

Relation between initial temperatures of reactions and changes of free energy for reactions similar in kind. V. A. Komarov (A. A. Zhukov State Univ., Leningrad). *Zhur. Fiz. Khim.* 27, 1748-50 (1953); cf. Tsvetkov, *Trudy Inst. Geol. Nauk, Akad. Nauk S.S.S.R.* 106, 87 (1949).—The initial (T_i) and equil. (T_e) temps. of reaction, ΔH_{298}° , and ΔF_{298}° were calcd. from literature data for the reduction by H of the oxides of the bivalent metals Cu, Zn, Cd, Ni, Fe, Co, Pb, and Mn and for the thermal decompn. of the carbonates of Ca, Mg, Fe, Zn, Ba, Pb, and Sr. The values of T_i and T_e for the reduction by EtOH and iso-PrOH of MgO , MnO , TiO_2 , Cr_2O_3 , ZnO , CdO , Fe_2O_3 , CuO , and Cu_2O were measured; values of ΔF_{298}° for these reactions. Data are tabulated and graphed. The linear relation between ΔF_{298}° and T_e is predicted in a theoretical discussion. J. W. Loweberg Jr.

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 1. Reactions of the reduction of metal oxides by hydrogen. Uch.zap.Len.un.169:29-35 '53.
(MLRA 9:6)
(Oxides) (Reduction, Chemical) (Chemical reaction, Heat of)

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 2. Carbonate dissociation reactions. Uch.zap.Len.un.169:36-40 '53. (MLRA 9:6)
(Carbonates) (Dissociation) (Thermal analysis)

KOMAROV, V.A.

Connection between the initial reaction temperature and the variation of free energy. Part 3. Reduction of metal oxides by alcohols. Uch.sap.Len.un.169:41-48 '53. (MLRA 9:6)
(Oxides) (Reduction, Chemical)

KOMAROV, V.A.

USSR/ Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 15/21

Authors : Komarov, V. A., and Chernikova, Yo. A.

Title : Effect of certain hydroxide admixtures on the dehydration of $\text{Al}(\text{OH})_3$

Periodical : Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract : The process of $\text{Al}(\text{OH})_3$ dehydration (pure aluminum hydroxide and $\text{Al}(\text{OH})_3$ containing admixtures of other hydroxides) was investigated by the continuous oven suspension and thermographic methods. A strong effect of other hydroxide admixtures on the dehydration of $\text{Al}(\text{OH})_3$ was definitely established. Foreign hydroxide admixtures result in the reduction in the

Institution : Leningrad University im. A. A. Zhdanov, Inst. of Chem.

Submitted : March 19, 1955

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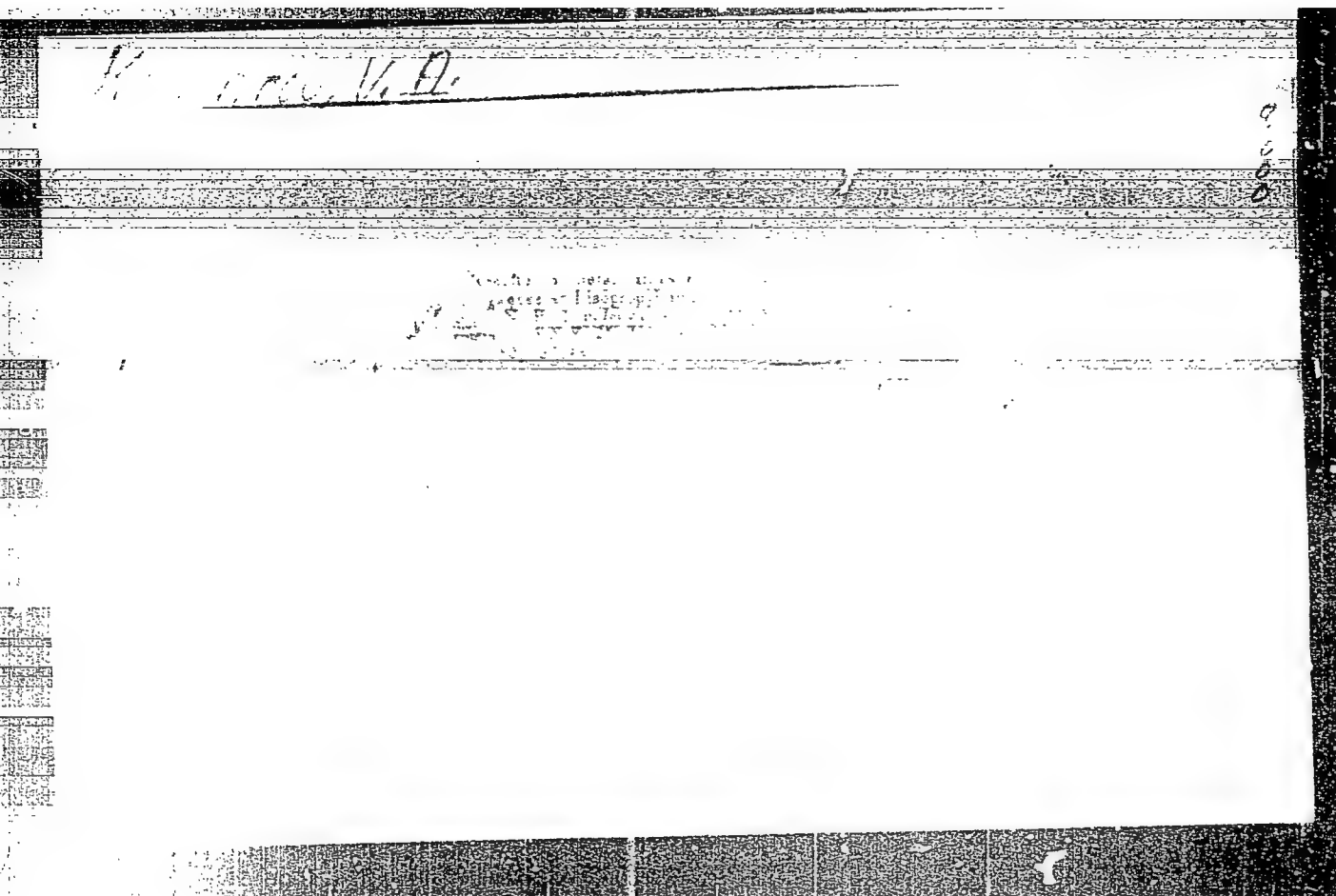
Periodical : Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract : number of endothermal maxima corresponding to the maximum rate of water separation and in the reduction of the temperature interval between the maxima. The specific surface of $\text{Al}(\text{OH})_3$ compounds containing admixtures was found to be smaller than the surface of pure compounds. Nine references: 6 USSR and 3 Germ. (1924-1954). Tables; graphs.

Komarov, V. A.

1/10 1950 N. P. Timofeeva, and S. A. Timofeev, *Ann. Khim. Akad. Nauk SSSR*, **1950**, 11, 1111. *Chem. Abstr.* 44:1111 (1950).
1/10 1950 Leningrad, *Zhur. Obshch. Khim.*, **1950**, 16, 1111. *Chem. Abstr.* 44:1111 (1950).
1/10 1950, cf. C.A. 48, 9799g. — Passage of isop-PrOH over MnO₂ (MnO₂ was examd. up to 400°). On

an instance of the alc. from EtOH, CH₃OH, C₂H₅OH, and C₃H₇OH. The final product of action is an Mn oxide corresponding to MnO₂·MnO, which retains the x-ray a



Dietri (HEJ/HE203)

Interaction of metal oxides with isopropyl alcohol
oxides and isopropyl alcohol.

of 51.5% CuO, 31.5% Cu₂O, and 17% Cu.
In the reaction: $\text{iso-PrOH} + 3 \text{ CuO} \rightarrow \text{Me}_2\text{CO} + \text{Cu}_2\text{O}$
+ H_2O ; $\text{iso-PrOH} + \text{Cu}_2\text{O} \rightarrow \text{Me}_2\text{CO} + 2\text{Cu} + \text{H}_2\text{O}$.
After prolonged treatment the catalyst contains 14-50%
of the original metal.

by catalytic activity.
II. Iron oxides and isopropyl alcohol. Res. 200-11.

The interaction of gaseous iso-PrOH (I) with the following

oxidized to 100% by 100% CuO. The catalyst is applied in catalytic II.

KOMAROV, V A -

SOV/2924

5(3)

PHASE I BOOK EXPLOITATION

Bolotov, Boris Aleksandrovich, Vyacheslav Aleksandrovich Komarov,
and Tat'yana Vsevolodovna Nizovkina

Prakticheskiye raboty po organicheskomu katalizu (Practical
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Resp. Ed.: B. N. Dolgov, Professor; Ed.: Ye. V. Shchemeleva;
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PURPOSE: This book is intended for the personnel of scientific
research institutes and factory laboratories. It will be of
~~interest~~ to teachers and students of advanced courses in
chemistry and chemical technology vuzes. It may also be used
as a manual to aid in setting up and performing various

Card 1/6

Practical Studies in Organic Catalysis

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operations with catalytic methods, and in organizing effective work practices.

COVERAGE: The book describes the principal apparatus used to produce catalytic reactions at normal and higher pressures, methods of producing and studying catalysts, and the methods of producing those catalytic reactions which embrace the main branches of organic catalysis. The authors thank K. P. Katkova, I. M. Stroyman, Ye. A. Chernikova, N. P. Usacheva, and R. M. Adrov. References accompany each chapter.

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